

**REMARKS**

Applicants' Representative thanks Examiner R. Cook for the helpful and courteous discussion of December 13, 2001.

Claims 11-20 are pending.

Claims 11-12 and 14-15 have been amended. No new matter has been added.

Support for the amendments is in the specification as originally filed.

As per 37 C.F.R. § 1.121(c)(1), amendments are presented in clean form in the body of this filing and in marked-up form in the attached Appendix.

**I. The Rejections Under The First Paragraph Of 35 U.S.C. § 112**

Claims 11-15 stand rejected under § 112, first paragraph, as lacking support in the specification for attaching the ester or amide substituent at any atom in the heterocyclic compound (Office Action, page 2, paragraphs 1-2).

Applicants have amended the specification by adding the text of claim 11. No new matter issues arise because the subject matter added to the specification is supported by claim 11 as introduced in the Preliminary Amendment concurrently filed with the present application on February 13, 2001. The specification thereby provides written description support for claims 11-15. Applicants request that the Office withdraw this ground of rejection.

Claim 17 stands rejected under § 112, first paragraph, as non-enabled by the specification. The Office asserts that claim 17 is non-enabled as inoperative because "C.A.

122:230322 discloses that rapamycin does not initiate hair growth” (Office Action, page 2, 3<sup>rd</sup> paragraph).

Applicants respectfully traverse.

According to the Federal Circuit, the test for enablement is whether the experimentation needed to make or use the invention is undue. *See In re Wands*, 858 F.2d 731, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988). In rejecting claims for lack of enablement, the Examiner must first establish a *prima facie* case of non-enablement by providing reasons for doubting the disclosure’s teaching of how to use the invention. *See In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995) (reversing a lack of utility/enablement rejection for failure to adequately challenge a “presumptively correct assertion of utility in the disclosure”) and *In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (C.C.P.A. 1971). The M.P.E.P. instructs Examiners as follows:

The presence of inoperative embodiments within the scope of a claim does not necessarily render a claim nonenabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1577, 224 USPQ 409, 414 (Fed. Cir. 1984).

M.P.E.P. § 2164.08(b) (8<sup>th</sup> Ed., August 2001).

The Office has not met its burden of making out a *prima facie* case of non-enablement. Specifically, the Office has not adequately challenged Applicants’ presumptively correct assertion of utility in the specification. The cited reference C.A. 122:230322 discloses that rapamycin does not initiate anagen hair growth. However, the

reference does not disclose that rapamycin is inoperative for treating alopecia or promoting hair growth. As defined in the specification:

“Promoting hair growth” refers to maintaining, inducing, stimulating, accelerating, or revitalizing the germination of hair.

“Treating alopecia” refers to:

- (i) preventing alopecia in an animal which may be predisposed to alopecia; and/or
- (ii) inhibiting, retarding or reducing alopecia; and/or
- (iii) promoting hair growth; and/or
- (iv) converting vellus hair to growth as terminal hair.

Specification (page 9, line 21, to page 10, line 5).

While the embodiment of initiating anagen hair growth may not be operative according to the disclosure of C.A. 122:230322, that alone does not render the claims non-enabled. M.P.E.P. § 2164.08(b).

Applicants submit that the rejection is unsound and should be withdrawn.

## **II. The Rejection Of The Claims Under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph**

Claims 11-20 stand rejected as indefinite under the second paragraph of § 112.

The Office asserts that there is no antecedent basis in claim 11 for the term “a second hair revitalizing agent” (Office Action, page 2, 5<sup>th</sup> paragraph).

Applicants respectfully traverse. The term “a second hair revitalizing agent” imparts no indefiniteness to the claims. The specification refers repeatedly to the compounds of the invention as “hair revitalizing” (see, e.g., page 9, line 22, and page 65, line 15) and discloses that “the compounds can be administered with other hair revitalizing agents” (page 64, lines 27-28). A person of skill in the art would thus recognize that by implication the compound of element (i) is the “first” hair revitalizing agent. Applicants draw the Office’s attention to

U.S. Patent No. 6,239,164, which issued from parent U.S. Patent Application No. 09/369,860, and in which claims 21-24 contain the identical language. The Federal Circuit has reprimanded the USPTO for not recognizing its own precedent in rejecting claims under 35 U.S.C. § 112. In re Cortright, 49 U.S.P.Q.2d 1464, 1467 (Fed. Cir. 1999). The Office recognized, in allowing the parent case, that the term “a second hair revitalizing agent” would present no ambiguity to a person of skill in the art, and should follow that precedent in the present application. Applicants therefore request that the Office withdraw this rejection.

The Office asserts that the term “pipecolic acid derivative” in claims 12-15, and 20 lacks antecedent basis in base claim 11 (Office Action, page 2, penultimate paragraph).

Applicants have amended claims 12 and 14-15 to replace “pipecolic acid derivative” with --compound--. Claim 13 does not recite “pipecolic acid derivative.” Because claim 20 is lengthy and complex, Applicants request that the Office enter an Examiner’s Amendment to replace “pipecolic acid derivative” with --compound-- in line 2 of claim 20.

The Office asserts that the term “heterocyclic ring” in claim 11 lacks antecedent basis (Office Action, page 2, last line). Applicants have obviated this ground of rejection by amending claim 11.

Applicants request that the Office withdraw all the § 112 rejections.

**III. The Rejection Of The Claims Under 35 U.S.C. § 103(a) Over C.A. 128:34577**

Claims 11-14 stand rejected as obvious over C.A. 128:34577. The Office asserts that C.A. 128:34577 “discloses that FK506, a compound meeting the description of the compound of claim 11, promotes hair growth” (Office Action, page 3, 4<sup>th</sup> paragraph).

Applicants respectfully traverse. The compound FK506 does not contain an “ester or amide substituent attached to the hetrocyclic ring” as recited in claim 11. Applicants have attached a copy of the record for FK506 (Tacrolimus, CA Reg. No. 104987-11-3) as obtained from [www.chemfinder.com](http://www.chemfinder.com) (CambridgeSoft). The attached record shows the structure of FK506, in which no ester or amide moiety appears. Applicants note that the group attached alpha to the piperidine ring nitrogen is not a carbonyl group. Absent an ester or amide moiety, FK506 does not fall within the literal scope of claim 11. Applicants therefore request that the Office withdraw this ground of rejection.

**IV. The Rejection Of The Claim 11 For Non-Statutory Double Patenting**

Claim 11 stands rejected for non-statutory double patenting over claims 5-6 of co-pending U.S. Patent Application No. 09/784,174. Applicants request that this ground of rejection be held in abeyance pending indication of allowable material.

**V. The Request For Identification Of Related Cases**

The Office requested that Applicants identify related cases (Office Action, paragraph bridging pages 4-5). Applicants have filed concurrently herewith an Information Disclosure Statement listing related pending applications and issued patents. Items listed on page 1 of

the attached Forms PTO-1449 have been submitted with the concurrently-filed Reply in U.S. Patent Application No. 09/825,896. Items listed on page 2 of the attached Forms PTO-1449 have been submitted herewith.

#### **VI. References Cited But Not Received By The Office**

The Office noted that certain references cited in a previously-filed Information Disclosure Statement were not considered by the Office because the references were not received (Office Action, page 4, last paragraph). Applicants have listed the references on a separate Form 1449 for the Examiner's convenience, and as agreed during the December 13, 2001, interview Applicants have submitted those missing references concurrently herewith in the 09/825,896 application.

#### **VII. CONCLUSION**


Applicants submit that the pending claims are now in condition for allowance. If the Office has questions, the Office is invited to call Applicants' Representative directly at (202) 974-6018.

Please charge or credit Deposit Account No. 12-2475 for all fees as needed.

Respectfully submitted,

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**APPENDIX:**

**MARKED-UP VERSION OF AMENDED CLAIMS**

11. (Twice Amended) A pharmaceutical composition which comprises:
- (vii) an effective amount of a compound having a six-membered heterocyclic ring with [compound having] a single nitrogen heteroatom, which has an N-linked ketone, diketo, or thioketo substituent attached to the heterocyclic ring, and which is additionally substituted with an ester or amide substituent attached to the heterocyclic ring, provided that said ester or amide substituent is not an N-oxide of an ester or amide for treating alopecia or promoting hair growth in an animal in need thereof;
  - (viii) a second hair revitalizing agent; and
  - (ix) a pharmaceutically acceptable carrier.
12. (Amended) The pharmacological composition of claim 11, wherein the [pipecolic acid derivative] compound has an affinity for an FKBP-type immunophilin.
14. (Amended) The pharmacological composition of claim 11, wherein the [pipecolic acid derivative] compound is immunosuppressive.
15. (Amended) The pharmacological composition of claim 11, wherein the [pipecolic acid derivative] compound is non-immunosuppressive.